WHAT IS CLAIMED IS:

1. A heat-sensitive lithographic printing plate precursor comprising a support having thereon two image-forming layers each containing a polymer insoluble in water and soluble in an aqueous alkaline solution, wherein an upper layer of the image-forming layers contains a copolymer including a monomer unit represented by formula (A) shown below,

$$\begin{array}{c|c}
 & Z \\
 & CH - C - \\
 & (X)_n \\
 & W
\end{array}$$
(A)

wherein W represents a carboxy group, X represents a divalent connecting group, Y represents a hydrogen atom or a carboxy group, Z represents a hydrogen atom, an alkyl group or a carboxy group, or W and Z or Y and Z may be combined with each other to from an acid anhydride group of -(CO)-O-(CO)-, and m represents 0 or 1.

2. The heat-sensitive lithographic printing plate precursor as claimed in Claim 1, wherein the monomer unit represented by formula (A) is a monomer unit represented by formula (A') shown below,

wherein Z' represents a hydrogen atom or an alkyl group, and X' represents an arylene group, which may have a substituent, or any one of the strictures represented by formulae (X1) to (X3) shown below,

wherein Ar represents an arylene group, which may have a substituent, and R' represents a divalent connecting group.

- 3. The heat-sensitive lithographic printing plate precursor as claimed in Claim 1, wherein the copolymer further contains a monomer unit derived from a monomer selected from a (meth)acrylate, a (meth)acrylamide derivative and a styrene derivative.
- 4. The heat-sensitive lithographic printing plate precursor as claimed in Claim 1, wherein the upper layer of the image-forming layers further contains an infrared absorbing dye.
- 5. The heat-sensitive lithographic printing plate precursor as claimed in Claim 1, wherein the upper layer of the image-forming layers further contains a dissolution inhibiting compound.